

CLAIMS:

1. A communication system with means for transmitting a data stream via a transmission medium by means of time slot coding, wherein a synchronization pattern is provided for insertion into the data stream, in which the synchronization pattern is selected such that it differs by a prescribable Hamming distance from all the valid data signals of the time slot coding independently of the respective time slot of the data signals, and that it differs by a prescribable Hamming distance from all time-shifted versions of the synchronization pattern.
2. A communication system as claimed in claim 1, characterized in that the prescribable Hamming distance is greater than or equal to 2.
3. A communication system as claimed in claim 1, characterized in that a synchronization detector is provided for continuous comparison of the received data stream with the synchronization pattern, and wherein the synchronization detector is provided for generating a synchronization pulse when the Hamming distance between the received data stream and the synchronization pattern undershoots a prescribable threshold value.
4. A communication system as claimed in claim 3, characterized in that the communication system is a TDMA (Time Division Multiple Access) system, and in that the synchronization detector is provided both for symbol synchronization of the time slot coding and for frame synchronization of the TDMA time frame.
5. A communication system as claimed in claim 3, characterized in that the synchronization detector has a shift register with parallel outputs, to which the data stream is fed on the input side, in that the synchronization pattern is stored in the synchronization detector, and in that the synchronization detector is provided for pairwise comparison of the stored synchronization pattern with the output signals of the shift register.

6. A synchronization detector for detecting a synchronization pattern within a data stream of a time-slot-coded signal, which synchronization detector has a shift register with parallel outputs to which the data stream is fed on the input side, in which the synchronization pattern is stored in the synchronization detector, and in which the
5 synchronization detector is provided for pairwise comparison of the stored synchronization pattern with the output signals of the shift register.

7. A time-slot-coded signal which receives at regular time intervals a synchronization pattern which is selected such that it differs by a prescribable Hamming
10 distance from all the valid data signals of the time slot coding independently of the respective time slot of the data signals, and that it differs by a prescribable Hamming distance from all time-shifted versions of the synchronization pattern.

8. A method of transmitting a data stream via a transmission medium by means
15 of time slot coding, wherein a synchronization pattern is provided for insertion into the data stream, which pattern is selected such that it differs by a prescribable Hamming distance from all the valid data signals of the time slot coding independently of the respective time slot of the data signals, and that it differs by a prescribable Hamming distance from all time-shifted versions of the synchronization pattern.

9. A terminal for a communication system with means for transmitting a data
20 stream via a transmission medium by means of time slot coding, wherein a synchronization pattern is provided for insertion into the data stream, in which the synchronization pattern is selected such that it differs by a prescribable Hamming distance from all the valid data
25 signals of the time slot coding independently of the respective time slot of the data signals, and that it differs by a prescribable Hamming distance from all time-shifted versions of the synchronization pattern.